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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MILLER, BRIAN E

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/741,684	Applicant(s) WONG ET AL.	
	Examiner BRIAN E. MILLER	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 19-24 are now pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 8/12/08 has been entered.

Claim Objections

2. Claim 19 is objected to because of the following informality: (a) claim 19, second to last line the phrase "along the generally the center of a suspension" is grammatically confusing and should be modified appropriately. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 19-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The language in claim 19, last line, i.e., “and electrically couple the slider to the suspension” is not described in the specification and is considered to be new matter.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 19-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19, last three lines, the phrase “and further wherein a plurality...to the suspension,” is considered indefinite for various reasons. (a) The phrase “around the outer edges of a slider” lacks proper antecedent basis. It is not readily apparent what edges applicant is referring to nor if applicant is referring to a different slider than the one previously recited in line 8 of the claim; (b) the phrase “the trailing edge of the slider” lacks proper antecedent basis as well; (c) the phrase “electrically couple the slider to the suspension” is misdescriptive such that it is not readily apparent how the slider is electrically coupled to the *suspension* itself, i.e., is the suspension electrically conducting?

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Albrecht et al (US 5,821,494). (as per claim 19) Albrecht et al discloses a suspension as shown in at least FIG. 3, and FIGs. 12A-12C) which includes: a suspension 44 with a metal suspension bonding pad 64 for bonding to a magnetic head terminal with a slider bonding pad 62, which includes a bonding substance 122/60 which is a conductive adhesive solder film polymer (see col. 11, lines 16-25 and re claims 20-23), applied as a surface finishing material, which material is heat treated "prior to bonding to a surface" (see col. 10, lines 50-53 & FIG. 10B). Additionally, as shown in FIG. 12A the slider bonding pad 62 is "initially without bonding substance" and subsequently is electrically bonded to a suspension bonding pad 64 when the bonding substance 60 is reflowed (see FIG. 12C and col. 10, lines 35-53).

Further, with respect to the language "wherein the slider bonding pad...with heat treatment," it is understood and well known in the art, that heat treatment will allow a solder connection to melt and permit disconnection of an electrical connection. It is also noted, that this process limitation has not been given any patentable weight (see also Board Decision of 6/13/08 for more details).

The following limitations are addressed in so far as they are definite and understood with respect to the 112 (2) paragraph rejections, set forth above. Albrecht et al further is considered to show (see FIGs. 21A, 21B, 21C and col. 9, lines 10-53) a plurality of traces 74A extending longitudinally along generally the center of the suspension 44, and around the outer edges of the slider 42 to the trailing edge of the slider and electrically couple the traces with the magnetic head 40, as known in the art.

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9. Claims 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Ainslie et al (US 4,761,699). Ainslie et al discloses a suspension, as shown in FIGs. 4 & 5, including a slider 16 and a suspension 40; a suspension bonding pad 47/63 for electrically bonding to a magnetic head terminal, e.g., a slider bonding pad 41. Additionally, as shown in FIG. 4, the slider bonding pad is initially without bonding substance, such that as in FIG. 6, the suspension bonding pad 47 and slider bonding pad(s) 41, 70 are electrically coupled to each other when the bonding substance is reflowed; further the bonding substance includes solder 80, 82 (re claims 20, 22-23) and a conductive adhesion film 74, 76 (re claims 21-23), applied as a surface finishing material, which material is heat treated "prior to bonding to a surface" (see col. 7, lines 15-16).

Further, with respect to the language "wherein the slider bonding pad...with heat treatment," it is understood and well known in the art, that heat treatment will allow a solder connection to melt and permit disconnection of an electrical connection. It is also noted, that this process limitation has not been given any patentable weight (see also Board Decision of 6/13/08 for more details).

The following limitations are addressed in so far as they are definite and understood with respect to the 112 (2) paragraph rejections, set forth above. Ainslie et al further is considered to show (see FIGs. 1 & 2 and col. , lines 20-41) a plurality of traces 55, 52, 54 extending longitudinally along generally the center of the suspension 40, underneath and around the outer edges of the slider 42 to the trailing edge 26 of the slider and electrically couple the traces with the magnetic head(s) 11/13, as known in the art.

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Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Albrecht et al or Ainslie et al. For a description of both Albrecht et al or Ainslie et al, see the separate rejections for each, supra.

Albrecht et al or Ainslie et al are silent as to the dimensions, i.e., height and diameter, of the solder bump, however, Albrecht does teach the slider pads to be no larger than 120 um (see col. 11, lines 19-20) which size slider pad would presumably encompass a solder bump having a diameter equal to or approximate to that dimension. Taking this and the knowledge of a skilled artisan into consideration it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided solder bumps within the claimed dimensions to the respective teachings of Albrecht et al or Ainslie et al. The motivation would have been: lacking any unobvious or unexpected results, the particular solder bump height and diameter would have been provided through routine experimentation and optimization so as to optimize the electrical connection with minimal height usage, which would have been realized by a skilled artisan.

Response to Arguments

12. Applicant's arguments filed 8/12/08 have been fully considered but they are not persuasive.

A...Applicant submits a response regarding the previously set forth 112(2) rejection, however, this rejection was previously withdrawn and is moot at this time.

B...Applicants further submit that “the cited references do not teach, suggest or describe at least “[a] suspension comprising ... wherein a plurality of traces extend longitudinally along the generally the center of a suspension, extend around the outer edges of a slider to the trailing edge of the slider, and electrically couple the slider to the suspension” (*e.g.*, as described in claim 19).”

The Examiner respectfully disagrees. Applicant has not identified specific reasoning in which the cited references fail to show these limitations. Failure to do so amounts to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references and thus applicant's arguments fail to comply with 37 CFR 1.111(b).

It is noted that the newly added claim language has been addressed and discussed in the rejections, *supra*, and such, the claims remain unpatentable with respect to Albrecht et al and Ainslie et al.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN E. MILLER whose telephone number is (571)272-7578. The examiner can normally be reached on M-TH 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

***/Brian E. Miller/
Primary Examiner, Art Unit 2627***

BEM
August 29, 2008